

In the claims:

Please cancel claims 1-26 in their entirety without prejudice or disclaimer of the subject matter contained.

Please add new claims 27-⁶⁵~~63~~ as follows:

- 1 --~~27~~. An implantable device comprising:
- a power supply module; and
 - a main module,
- said power supply module and said main module being interconnected by a coupling element;
- wherein said power supply module includes
- a hermetically sealed protective enclosure;
 - a repeatedly rechargeable electrochemical battery for supplying electrical power via said coupling element to said main module, said repeatedly rechargeable electrochemical battery being housed within said enclosure;
 - a detector element fixed to said power supply module, and
 - at least one switching element fixed to said power supply module and operatively connected to said detector element, said at least one switching element preventing at least one of recharging and discharging of said battery when said detector element detects that said battery is in an unallowable operating state.
- 2 ~~28~~. The implantable device as claimed in claim ¹~~27~~, wherein said coupling element is designed to provide for a metallic contact between said power supply module and said main module.

3 2~~6~~. The implantable device as claimed in claim 2~~7~~¹, wherein said coupling element is designed to provide for an inductive coupling between said power supply module and said main module.

4 3~~0~~. The implantable device as claimed in claim 2~~7~~¹, wherein said coupling element is designed to provide for a detachable interconnection between said power supply module and said main module.

5 3~~1~~. The implantable device as claimed in claim 3~~0~~⁴, wherein said coupling element is formed of two parts, a first part of which is assigned to the main module, and a second part which is assigned to the power supply module.

6 3~~2~~. The implantable device as claimed in claim 3~~1~~⁵, wherein said first part of said coupling element is integrated into a housing of said main module.

10 3~~3~~. The implantable device as claimed in claim 2~~7~~¹, wherein said hermetically sealed protective enclosure is biocompatible and defines an outer housing of said power supply module.

7 3~~4~~. The implantable device as claimed in claims 3~~1~~⁵, wherein said second part of said coupling element is integrated into said hermetically sealed protective enclosure.

12 3~~5~~. The implantable device as claimed in claim 2~~7~~¹, wherein said power supply module further comprises a biocompatible outer housing, and said hermetically sealed protective enclosure is disposed within said outer housing.

8 3~~6~~. The implantable device as claimed in claims 3~~1~~⁵, wherein said second part of said coupling element is integrated into said outer housing.

9 3~~7~~. The implantable device as claimed in claim 3~~1~~⁵, wherein at least one of said first part and said second part of said coupling element is electrically connected to the

associated module via a flexible connecting lead.

¹⁴
~~38~~. The implantable device as claimed in claim ¹~~27~~, wherein said main module comprises charging/discharging electronics for controlling at least one of recharging and discharging of the battery.

¹⁵
~~39~~. The implantable device as claimed in claim ¹~~27~~, further comprising a charging current feed arrangement into which power can be supplied via an external charging device, said charging device being separated from said power supply module and said main module.

¹⁶
~~40~~. The implantable device as claimed in claim ¹⁵~~39~~, wherein said charging current feed arrangement is accommodated by a housing of said main module.

¹⁷
~~41~~. The implantable device as claimed in claim ¹⁵~~39~~, wherein said charging current feed arrangement comprises a receiving coil which is fixed on an outer side of said main module.

¹⁸
~~42~~. The implantable device as claimed in claim ¹⁷~~41~~, wherein said receiving coil is surrounded by a biocompatible polymer.

¹⁹
~~43~~. The implantable device as claimed in claim ¹⁷~~41~~, wherein said receiving coil is made of a biocompatible metal.

²⁰
~~44~~. The implantable device as claimed in claim ¹⁷~~41~~, wherein said receiving coil is located on a longitudinal end of the housing of said main module, and wherein a straight line running in a direction of said main module forms an angle in a range from 5 to 25° with a line which is perpendicular to an axial direction of said receiving coil.

²¹/~~45~~. The implantable device as claimed in claim ¹⁷/~~41~~, wherein said receiving coil is affixed to said main module in a flexible manner by means of a biocompatible polymer which surrounds said receiving coil.

²²/~~46~~. The implantable device as claimed in claim ¹/~~27~~, further comprising evaluation electronics for monitoring said detector element; and wherein said least one switching element is electrically actuatable by said evaluation electronics.

²³/~~47~~. The implantable device as claimed in claim ²²/~~46~~, wherein said main module comprises said evaluation electronics.

²⁴/~~48~~. The implantable device as claimed in claim ¹/~~27~~, wherein said coupling element further comprises means for transmitting an electrical signal in addition to said supplying of said electrical power.

A ²⁵/~~49~~. The implantable device as claimed in claim ¹/~~27~~, further comprising at least one secondary module which is connectable to said main module and which also is supplied with electric power by said power supply module.

¹¹/~~50~~. The implantable device as claimed in claim ¹⁰/~~33~~, wherein said hermetically sealed protective enclosure is biocompatible and defines an outer housing of said power supply module.

¹³/~~51~~. The implantable device as claimed in claims ¹²/~~35~~, wherein said second part of said coupling element is integrated into said outer housing.

²⁸/~~52~~. A power supply module for an implantable device, said power supply module comprising:

a hermetically sealed protective enclosure;

a repeatedly rechargeable electrochemical battery for supplying electrical power

via a coupling element to a main module of said implantable device, said battery being housed within said enclosure, and said coupling element being designed to provide for a detachable interconnection between said power supply module and said main module,

a detector element fixed to said enclosure, and

at least one switching element fixed to said enclosure and operatively connected to said detector element, said at least one switching element preventing at least one of recharging and discharging of said battery when said detector element detects that said battery is in an unallowable operating state.

²⁷
~~53~~. The power supply module as claimed in claim ²⁶~~52~~, wherein said hermetically sealed protective enclosure is biocompatible and defines an outer housing of said power supply module.

A1 ²⁸
~~54~~. The power supply module as claimed in claim ²⁷~~53~~, wherein a part of said coupling element associated to the power supply module is integrated into said hermetically sealed protective enclosure.

²⁹
~~55~~. The power supply module as claimed in claim ²⁶~~52~~, wherein said power supply module further comprises a biocompatible outer housing, and said hermetically sealed protective enclosure is disposed within said outer housing.

³⁰
~~56~~. The power supply module as claimed in claim ²⁹~~55~~, wherein a part of said coupling element associated to the power supply module is integrated into said outer housing.

³¹
~~57~~. The power supply module as claimed in claim ²⁶~~52~~, further comprising charging/discharging electronics for controlling at least one of recharging and discharging of the battery.

32/58. The power supply module as claimed in claim 52, further comprising a charging current feed arrangement into which power can be supplied via an external charging device.

33/58. The power supply module as claimed in claim 58, wherein said charging current feed arrangement comprises a receiving coil which is fixed on an outer side of the power supply module.

34/59. The power supply module as claimed in claim 59, wherein said receiving coil is surrounded by a biocompatible polymer.

35/61. The power supply module as claimed in claim 59, wherein said receiving coil is made of a biocompatible metal.

A1 36/62. The power supply module as claimed in claim 59, wherein said receiving coil is located on a longitudinal end of a housing of said power supply module, and wherein a straight line running in a direction of the power supply module forms an angle in a range from 5 to 25° with a line which is perpendicular to an axial direction of said receiving coil.

37/63. The power supply module as claimed in claim 59, wherein said receiving coil is affixed to said power supply module in a flexible manner by means of a biocompatible polymer which surrounds said receiving coil.

38/64. The power supply module as claimed in claim 52, wherein said at least one switching element is integrated in said protective enclosure and is mechanically operable by said detector element in response to occurrence of said unallowable operating state of the battery.